

I022943
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Re: Fw: Case Report for Red-tailed Hawk dead from anticoagulant exposure
(WPU No. 110157): I022943
Norman Spurling to: Nicholas Mastrotta

06/01/2011 02:20 PM

This will be I022943
Norman Spurling
6(a)(2) Coordination and Analysis Team Leader
OPP/ITRMD/ISB
703-305-5835

Nicholas Mastrotta

Norman, I just got these reports from New York...

06/01/2011 01:46:41 PM

From: Nicholas Mastrotta/DC/USEPA/US
To: Norman Spurling/DC/USEPA/US@EPA
Date: 06/01/2011 01:46 PM
Subject: Fw: Case Report for Red-tailed Hawk dead from anticoagulant exposure (WPU No. 110157)

Norman,

I just got these reports from New York State on a new rodenticide poisoning case. Please add this as a wildlife incident to IDS. Please send me the I number once it is assigned. Thanks.

Nick

----- Forwarded by Nicholas Mastrotta/DC/USEPA/US on 06/01/2011 01:45 PM -----

From: "Joseph Okoniewski" <jcokonie@gw.dec.state.ny.us>
To: Nicholas Mastrotta/DC/USEPA/US@EPA
Date: 06/01/2011 11:51 AM
Subject: Case Report for Red-tailed Hawk dead from anticoagulant exposure (WPU No. 110157)

Nicholas,

Attached is the case report and the analytical report for your database. We should be sending you a few more of these cases, both recent and from the past few years.

Joe Okoniewski
NYSDEC - Wildlife Pathology Unit
108 Game Farm Road
Delmar, NY 12054



518-478-3038 RTHA110157.docx RTHA 110157 final.pdf

New York State Department of Environmental Conservation

Division of Air Resources

Bureau of Air Quality Surveillance, Shared Laboratory Facility

SUNY Albany East Campus, Rm. D104

11 University Place, Rensselaer, NY, 12144

Phone: (518) 525-2751 • Fax: (518) 525-2760

Website: www.dec.ny.gov



Joe Martens
Commissioner

MEMORANDUM

TO: Joe Okoniewski, Wildlife Pathology Unit

FROM: Peter Furdyna, EC II, BAQS Shared Laboratory Facility

SUBJECT: Rodenticide Screening Results – WPU ID 110157
Internal Laboratory ID 110033-G (Analysis in Duplicate)

DATE: **05/31/2011**

The sample was received at the laboratory on 05/12/2011 via hand delivery by Joe Okoniewski. At the time of receipt, the sample was noted to be -1°C and appeared to be frozen. The sample was identified as a red tailed hawk liver from a specimen collected at Riverside Park, Manhattan. Following receipt of the sample, it was maintained in secure frozen storage until the time of analysis.

As part of the laboratory QA program, this sample was selected to be analyzed in duplicate. Both sets of results on the sample are as follows:

Rodenticide	Concentration found (ppb, or ng/g)
Warfarin	ND < 3/ND < 4
Diphacinone	ND < 3/ND < 4
Chlorophacinone	ND < 3/ND < 4
Bromadiolone	5/5
Difenacoum	ND < 3/ND < 4
Brodifacoum	192/239
Difethialone	38/42

“ND” = “Not Detected” at < the specified reporting limit. Variation in reporting limit is due to differences in sample weights used for analysis.

The sample was prepared for analysis by the method of Vandenbroucke, et. al¹, modified by use of ascorbic acid² to aid in recovery of the indandione rodenticides diphacinone and chlorophacinone. Briefly, the sample was thawed and homogenized with the addition of 100 mg of ascorbic acid. A portion of the homogenate was then extracted using acetone. Following clean-up procedures, the extract was diluted and analyzed by UPLC/MS-MS. To correct for matrix enhancing effects noted for the higher molecular weight compounds, matrix matched standards of the target chemicals were used for instrument calibration.

Quality control data associated with this analysis was reviewed and found to be

¹ Journal of Chromatography B, 869 (2008) 101–110

² Journal of Chromatography, 437 (1988) 301 - 305

-Okoniewski-

May 31, 2011

acceptable, therefore this analysis is considered to be complete as of the date of this memorandum. If you have questions on this matter, please contact me.

cc: S. Mo.
Lab Data
File
PMF Daybook

Wildlife Pathology Unit

New York State Department of Environmental Conservation
108 Game Farm Road, Delmar NY 12054

Phone: 518-478-3034/3038

Fax: 518-478-3035

CASE REPORT - Final

Species: Red-tailed Hawk

County: New York

Town: Manhattan

WPU No.: 110157

Coordinates:

Specific Location:

Found: 4/24/11 Received: 4/27/11 Necropsied: 4/27/11 By: Okoniewski

Submitted by: Richard Simon, Urban Park Rangers

HISTORY: Found dead, no details.

NECROPSY FINDINGS: This adult (ASY) male red-tailed hawk was in good flesh with substantial fat reserves; gross weight: 1237 g; wing cord: 375 mm. Fly eggs were present in the mouth and the eyes were somewhat sunken. The tips of a few belly feathers were soiled with what appeared to be blood. Internally some post-mortem deterioration was evident. The lungs showed some gray-green discoloration. The liver was slightly pale. The kidneys were a yellowish tan color throughout. There was very little blood in the heart or elsewhere, with the exception of a small clot in the jugular vein. The brain was extremely pale. The stomach contained the fur, bones, and skull of a Norway rat. The intestine contents were blackish; no enteric helminthes were grossly noted.

HISTOPATHOLOGY: Set of tissues fixed.

TOXICOLOGY (analyses by NYSDEC's Division of Air Resources Shared Laboratory Facility): An anticoagulant rodenticide screen of the liver revealed brodifacoum at 0.192 ppm along with lesser amounts of difethialone (0.038 ppm) and bromadiolone (0.005 ppm).

DIAGNOSIS: Exsanguination related to exposure to anticoagulant rodenticides, principally brodifacoum.

COMMENT: Although extensive blood loss was apparent, the site of hemorrhage was not found.

Joe Okoniewski
May 31, 2011